Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-4. Canceled.

5. (Withdrawn, Currently Amended) The radiation-emitting semiconductor component as recited in claim [[1]] 20, wherein said semiconductor component is an LED.

6. (Withdrawn) The radiation-emitting semiconductor component as recited in claim 5, wherein said active layer of said LED comprises a homogeneous layer.

7. (Withdrawn) The radiation-emitting semiconductor component as recited in claim 5, wherein said active layer of said LED comprises a quantum well or a multiple quantum well.

8-11. Canceled.

12. (Currently Amended) The radiation-emitting semiconductor component as recited in claim [[1]] 20, wherein said first n-dopant comprises silicon.

13. (Currently Amended) The radiation-emitting semiconductor component as recited in claim [[1]] 20, wherein said second n-dopant comprises telluride.

14. (Currently Amended) The radiation-emitting semiconductor component as recited in claim [[1]] 20, wherein said p-doped confinement layer comprises magnesium, carbon or zinc dopant.

15-16. Canceled.

17. (Currently Amended) The radiation-emitting semiconductor component as recited in claim [[14]] 20, wherein the additional dopant is said second n-dopant.

18-19. Canceled.

20. (Currently Amended) A radiation-emitting semiconductor component with a layer structure comprising

- an n-doped confinement layer doped with a first n-dopant,
- a p-doped confinement layer, and
- an active, photon-emitting layer disposed between said n-doped confinement layer and said p-doped confinement layer, and doped with a second n-dopant different from the first n-dopant, wherein
- at least one layer of the layer structure is formed of a material selected from the group consisting of AlInGaP, AlGaAs, InGaAlAs, and InGaAsP,
- said n-doped confinement layer further includes the second n-dopant or an additional n-dopant, ~~and~~
- a first waveguide layer doped with said second n-dopant is disposed between said active layer and said n-doped confinement layer, and a second waveguide layer is disposed between said active layer and said p-doped confinement layer[[.]], and
- the first waveguide layer comprises a single layer that is doped with the second n-dopant and adjoins the active layer.

21. Canceled.

22. (New) A radiation-emitting semiconductor component with a layer structure comprising

- an n-doped confinement layer doped with a first n-dopant,
- a p-doped confinement layer, and

- an active, photon-emitting layer disposed between said n-doped confinement layer and said p-doped confinement layer, and doped with a second n-dopant different from the first n-dopant, wherein

- at least one layer of the layer structure is formed of a material selected from the group consisting of AlInGaP, AlGaAs, InGaAlAs, and InGaAsP,

- a first waveguide layer doped with said second n-dopant is disposed between said active layer and said n-doped confinement layer, and a second waveguide layer is disposed between said active layer and said p-doped confinement layer, and

- the first waveguide layer comprises a single layer that is doped with the second n-dopant and adjoins the active layer.

23. (New) The radiation-emitting semiconductor component as recited in claim 22, wherein said first n-dopant comprises silicon.

24. (New) The radiation-emitting semiconductor component as recited in claim 22, wherein said second n-dopant comprises telluride.

25. (New) The radiation-emitting semiconductor component as recited in claim 22, wherein said p-doped confinement layer comprises magnesium, carbon or zinc dopant.